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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/610,712	07/06/2000	Joan Llach-Pinsach	PHF 99,593	4917

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PHILIPS INTELLECTUAL PROPERTY & STANDARDS
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EXAMINER

CZEKAJ, DAVID J

ART UNIT	PAPER NUMBER
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2613

DATE MAILED: 11/18/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/610,712

Applicant(s)

LLACH-PINSACH ET AL.

Examiner

Dave Czekaj

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☐ Responsive to communication(s) filed on ____.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-8 is/are pending in the application.
- 4a) Of the above claim(s) ____ is/are withdrawn from consideration.
- 5) ☒ Claim(s) 2 is/are allowed.
- 6) ☒ Claim(s) 1,3, and 6-8 is/are rejected.
- 7) ☒ Claim(s) 4 and 5 is/are objected to.
- 8) ☐ Claim(s) ____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on ____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☒ The proposed drawing correction filed on 03 October 2003 is: a) ☒ approved b) ☐ disapproved by the Examiner.
- If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. ____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- 1) ☐ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) ____.
- 4) ☐ Interview Summary (PTO-413) Paper No(s). ____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____.

DETAILED ACTION

Response to Arguments

1. Applicant's arguments with respect to the claims have been considered but are moot in view of the new ground(s) of rejection.

Claim Rejections - 35 USC § 103

2. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

3. Claims 1, 3, 6, and 7 are rejected under 35 U.S.C. 103(a) as being unpatentable over Ratakonda (5956026) in view of De Haan et al. (6278736), (hereinafter referred to as "Haan").

Regarding claim 1, Ratakonda discloses a method for hierarchical digital video summarization and browsing (Ratakonda: column 2, lines 13-16). This method comprises a means for "detecting shot boundaries within the digital video sequence" (Ratakonda: column 2, lines 18-19, and Figure 2), "constructing a hierarchical summary with multiple levels, where levels vary in terms of detail" (Ratakonda: column 2, lines 30-32, and Figure 2), and breaking up the shots into keyframes or "micro-segments". "Each keyframe represents (and replaces) a contiguous set of video frames. The union of these contiguous sets of video frames is the entire shot" (Ratakonda: column 6, lines 46-49). Although Ratakonda fails to show homogeneity computed on a histogram as disclosed,

Ratakonda does show global motion event extraction. These global motion events are spurious indications of shot boundaries and are therefore extracted/removed from the keyframes or micro-segments in order to provide a level of homogeneity across the frames (Ratakonda: column 4, lines 42-48). Haan teaches that global motion events are often represented on a histogram as peaks (Haan: column 15, lines 10-20). Therefore, it would have been obvious to one having ordinary skill in the art at the time the invention was made to implement the global motion event extraction, computed by a histogram, since Haan shows that histograms are easily used to produce them. Further, one would be motivated to do so since Ratakonda is silent as to how the global motion is created.

Regarding claim 3, Ratakonda discloses that "similar keyframes at the fine levels are clustered together" (Ratakonda: column 9, lines 41-42) providing a "level of homogeneity" when subdividing the shots.

Regarding claim 6, Ratakonda discloses a method for hierarchical digital video summarization and browsing (Ratakonda: column 2, lines 13-16). This method comprises a means for "constructing a hierarchical summary with multiple levels, where levels vary in terms of detail" (Ratakonda: column 2, lines 30-32, and Figure 2), labeling the elements of the structure ("the user may identify or tag frame numbers K and L, i.e., the two keyframes between which there is a camera pan" (Ratakonda: column 5, lines 32-34)), and breaking up the shots into keyframes or "micro-segments". "Each keyframe represents (and

replaces) a contiguous set of video frames. The union of these contiguous sets of video frames is the entire shot" (Ratakonda: column 6, lines 46-49).

Regarding claim 7, Ratakonda discloses an "intelligent video indexing system" (Ratakonda: column 9, lines 14-15).

4. Claim 8 is rejected under 35 U.S.C. 103(a) as being unpatentable over Ratakonda (5956026) in view of De Haan et al. (6278736), (hereinafter referred to as "Haan"), in further view of Vaithilingam et al. (6411724), (hereinafter referred to as "Vaithilingam").

Ratakonda discloses a method for hierarchical digital video summarization and browsing (Ratakonda: column 2, lines 13-16). This method comprises a means for "constructing a hierarchical summary with multiple levels, where levels vary in terms of detail" (Ratakonda: column 2, lines 30-32, and Figure 2), labeling the elements of the structure ("the user may identify or tag frame numbers K and L, i.e., the two keyframes between which there is a camera pan" (Ratakonda: column 5, lines 32-34)), and breaking up the shots into keyframes or "micro-segments". "Each keyframe represents (and replaces) a contiguous set of video frames. The union of these contiguous sets of video frames is the entire shot" (Ratakonda: column 6, lines 46-49). However, Ratakonda lacks the storage and retrieval means as claimed. Vaithilingam teaches that multimedia information exists in various forms and needs to be easily locatable (Vaithilingam: column 1, lines 9-36). Vaithilingam further teaches that present systems are not efficient in searching multimedia (Vaithilingam: column 1, lines 9-36).

Vaithilingam discloses an invention that stores and searches descriptors, or "labels" (Vaithilingam: column 2, lines 30-49, and Figure 2) to help make the searching process more efficient. Therefore, it would have been obvious to one having ordinary skill in the art at the time the invention was made to take the method disclosed by Ratakonda and add the searching mechanism taught by Vaithilingam in order to efficiently search the descriptors, or "labels" using features found in the image.

Allowable Subject Matter

5. Claims 4 and 5 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.
6. Claim 2 is allowed.

Conclusion

7. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any

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extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Dave Czekaj whose telephone number is (703) 305-3418. The examiner can normally be reached on Monday - Friday 9 hours.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Chris Kelley can be reached on (703) 305-4856. The fax phone numbers for the organization where this application or proceeding is assigned are (703) 872 9314 for regular communications and (703) 872 9314 for After Final communications.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 305-4700.

November 5, 2003


CHRIS KELLEY
SUPERVISORY PATENT EXAMINER
TECHNOLOGY CENTER 2600